

Healthcare Case Study Indiana University Health

File transfer problems.
Solved.



Premier health care provider uses Accellion Secure File Transfer to quickly send and receive patient information for use by medical experts.

Background

As the demand for and the cost of scarce medical resources skyrocket, telemedicine is an increasingly important means to deliver high quality patient care. Indian University Health, a premier provider of health care in the heart of the U.S. Midwest, is one of the leading purveyors of telemedicine to improve patient care.

The Indiana Health network includes hospitals, partners and affiliates throughout the state of Indiana. In 2005, the network's hospitals had close to 60,000 admissions and nearly one million outpatient visits. Due to Indiana's success in achieving its mission to improve the health of its patients and communities through innovation and excellence in care, education, research and service, it has been ranked by US News & World Report as one of America's Top Hospitals for nine consecutive years.

Within the partner network, a growing telemedicine program links the experts and facilities so that patients in one part of the state can receive top-notch care from a provider located hundreds of miles away. This program allows patients to receive care within hours rather than days or weeks, and it saves them from expensive and time consuming travel. "Some of our patients would need to drive for hours one-way to reach a medical expert," says Jennifer Baron, Director of Indiana's telemedicine program. "Now they can stay in their own community and save a day off work."

The telemedicine program gives caregivers the ability to collect and transfer critical medical data, images, and live audio and video transmissions. This allows doctors in distant locations to view and interpret the information and determine the appropriate care. In this way, scarce resources can be shared and optimized among numerous facilities, and patient care is improved.

For example, only a few pediatric neurologists practice in the entire state of Indiana, with most residing in Indianapolis. Doctors and clinicians located elsewhere in the state can conduct tests and send the results to these experts for interpretation, sparing the patient the trip to Indianapolis for a personal visit.

Challenges

Much of the medical information is generated by PC-based clinical equipment that collects vast amounts of data in large files. For example, sleep studies and EEGs are being run on PCs today. The files, which easily can be 50 MBs or larger in size, can be read by another system miles away that has the same software. The challenge is how to efficiently and securely deliver the large files, since the doctors may be on separate computer networks.

In the past, the health care providers would copy the data to CD-ROMs and ship them overnight via a courier service. This solution does not work well in a medical world where time is of the essence. A patient, particularly a young child, suffering seizures can't wait for the typical ground delivery of more than a day to have the EEG read; it needs to be read now. Speed is especially crucial when the doctors are dealing with an undiagnosed condition.

"Without telemedicine, we get involved in a lot of file transfers of clinical information. The Accellion solution is getting pretty significant use and it's providing quite a bit of value to us."

David Boyer
Video Architect ,
Indiana University Health

David Boyer, the video architect responsible for all video conferencing and telemedicine for Indiana University University Health, was charged with finding a better alternative for transmitting large files. Boyer created his list of requirements for a secure file transfer solution. Top among his requirements:

- Security of the files in order to protect patients' privacy and comply with HIPAA regulations.
- Bundling numerous files into a single folder to keep related patient files together.
- Ease of use, such as an email-like interface that would make the solution easy for clinicians to use without getting IT support personnel involved.

Solution

Boyer's search for a solution brought him to Accellion, where he found that the Accellion Secure File Transfer System matched all his criteria. The Accellion solution is comprised of a secure file transfer appliance, a web user interface, an email plug-in for Microsoft Outlook and Lotus Notes, an IT administrator interface, and business process automation agents which can automatically scan and deliver files.

The appliance is designed to be installed in-house in just a few hours. It includes a dedicated file server that receives and holds large files and folders until they are retrieved by the specified recipients. For added security, files are encrypted during the transfer process, ensuring the privacy necessary to protect personal patient information.

In keeping with Boyer's ease of use requirement, the Accellion solution uses an email-like interface through which senders address messages to the target recipients. Senders can attach any number of files or folders up to 20 gigabytes in size –large enough for the medical records and images being sent by the Indiana doctors.

After a short in-house test, Indiana University Health installed the Accellion solution and made it available to the primary locations in the telemedicine program. "Only a few people at each hospital need to use the system, so there isn't a large user base," says Boyer. "However, it is getting pretty significant use, and it's providing quite a bit of value to us."

The Accellion solution allows the hospitals to send the very large folders of files in real-time to the doctors who need to evaluate the data. "Some of our studies involve lots of documents in many forms. Accellion lets the doctor wrap it all up into one folder and send it," says Boyer. "The doctor on the other end can go to the highest level of a folder, maybe a patient study, and then drill down to the other folders. It's one easy process." Having all the necessary data together and being able to send and receive it in real-time significantly speeds the diagnosis process, allowing doctors to turn around a transcript within hours, instead of days or weeks.

"What used to be done in two weeks can now be done in two hours," says Baron. "Test results can be done the same day." She adds that Indiana University Health looks at the Accellion secure file transfer system as an investment in improving patient care. Not only can the process save lives, but it also helps Indiana University Health manage scarce resources more effectively.

BENEFITS

- Patient care and convenience are improved since doctors now receive medical data in real-time instead of overnight.
- Scarce medical resources are shared more efficiently through telemedicine and distance-reading of large medical records.
- Patient privacy is preserved, and the health network maintains HIPAA compliance.

Specifications

Indiana University Health	
Deployed since	July 2006
# of Appliances	2
Location of Appliances	Indiana
LDAP/AD directory integration	500 Internal External: Unlimited
Web Interface	Yes
Email plug-in	Yes